A Revision of *Syncarpia* Ten. (Myrtaceae)

A.R. Bean

Summary

Bean, A.R. (1995). A Revision of *Syncarpia* Ten. (Myrtaceae). *Austrobaileya* 4(3): 337–344. The endemic Australian genus *Syncarpia* is revised, resulting in the recognition of four taxa, namely *S. glomulifera* (Sm.) Nied. subsp. *glomulifera*, *S. glomulifera* subsp. *glabra* (Benth.) A.R.Bean comb. et stat. nov., *S. hillii* F.M.Bailey, and *S. verecunda* A.R.Bean sp. nov. Each species is described and a distribution map provided for it. *S. verecunda* is illustrated. A key to the species is presented.

Keywords: Myrtaceae, *Syncarpia*, *Syncarpia verecunda*, *Syncarpia glomulifera* subsp. *glabra*.

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Introduction

Syncarpia Ten. is a small genus in the family Myrtaceae, subfamily Leptospermoideae. It is characterised within the family by its inflorescences comprising seven flowers fused at their bases, free stamens in continuous whorls, capsular fruits and leaves in pseudo-whorls of four.

Syncarpia was placed in the *Metrosideros* alliance and *Lophostemon* suballiance by Briggs and Johnson (1979). It is closely related to *Lophostemon* Schott and *Welchiodendron* Peter G.Wilson & J.T.Waterh. These three genera are alike in the arrangement of oil ducts in the petiole (Welch 1923), opposite juvenile phyllotaxis and the predominant occurrence of obvolute cotyledons in the embryo (Wilson & Waterhouse 1982). Both *Syncarpia* and *Lophostemon* have capsular fruits and can have leaves in pseudo-whorls, but the flowers of *Lophostemon* are not fused, and its stamens are grouped into five fascicles.

Syncarpia is endemic to eastern Australia. Its species are trees prized for their timber, especially because of its resistance to marine borers (Boland et al., 1984).

Syncarpia glomulifera (Sm.) Nied., the most widespread and first discovered species of the genus, has had a somewhat complex nomenclatural history.

Soon after the first European settlement of Australia at Port Jackson (now Sydney) in 1788, specimens of plants growing in the area were sent to England to be grown and classified. One of these, a tall tree soon to be called "Turpentine" by the colonists, was named *Metrosideros glomulifera* by the eminent botanist J.E. Smith in 1797. The same species was named *Tristania albens* by A. P. De Candolle in 1828. In 1839, Italian botanist, Michele Tenore decided to erect a new genus, *Syncarpia*, for the Turpentine tree, which he named *Syncarpia laurifolia*. Two years later, Nees von Esenbeck created the genus *Kamptzia*, based on De Candolle's species, which he named *Kamptzia albens*. Bentham (1867) took up the name *Syncarpia laurifolia* for this species, and placed *Kamptzia albens* in synonymy. It was not until 1893 that the combination *Syncarpia glomulifera* was made, by Niedenzu, for the Turpentine.

Bailey (1885) described a second species in this genus, which he called *S. hillii*, based on specimens he received from Fraser Island in Queensland.

The third species belonging to this genus, described in this paper as *S. verecunda*, has been recognised as a distinct taxon in the Queensland Herbarium for some years, although some specimens of it were determined as *S. hillii*.

Syncarpia species are cultivated outside Australia. For example, Ashton (1981) reports

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both *S. glomulifera* and *S. hillii* in cultivation in Sri Lanka, and *S. glomulifera* is cultivated in Fiji according to Smith (1985).

Taxonomy

Syncarpia Ten., Ind. Sem. Hort. Bot. Neap. 12 (1839); *Metrosideros* sect. *Syncarpia* (Ten.) Baill., Hist. pl. 6: 365–6 (1877); *Metrosideros* sect. *Sarcynpia* Baill., Hist. pl. 6: 365–6 (1877), nom. illeg.; *Nania* sect. *Syncarpia* (Ten.) Kuntze in Post & Kuntze, Lex. gen. phan. 382 (1904). **Type:** *Syncarpia laurifolia* Ten. (= *S. glomulifera* (Sm.) Nied.).

Kamptzia Nees, Nov. Actorum Acad. Caes. Leop.-Carol. Nat. Cur. 18: 9 (1841); Metrosideros sect. *Kamptzia* (Nees) Baill., Hist. pl. 6: 365–6 (1877). **Type:** *Kamptzia albens* (DC.) Nees.

***Derivation of name*:** from the Greek *syn*, together and *karpos*, fruit, in reference to the fused capsules found in all species.

Trees, rarely shrubby, up to 60m high, straight-trunked, with primary branching angle at or near 90 degrees to trunk; bark fibrous, deeply furrowed, grey on surface, brown below. Branchlets and petioles exuding a red resin when cut. Cotyledons elliptical. Seedlings with lignotubers. Seedling stems hairy; cotyledons elliptical; seedling leaves opposite, ovate to elliptical, hairy. Adult leaves opposite but forming pseudo-whorls of 4 leaves near the ends of branchlets, hairy or glabrous, venation penninerved, reticulate, oil glands present. Branchlets with terminal buds covered by scales; scales deciduous after expansion of new shoots. Inflorescences comprising axillary, 7-flowered (or fewer by abortion) dichasia, flowers sessile and connate at base. Bracts 2 per inflorescence, almost completely enclosing the very young inflorescence, persistent, becoming partially fused to the base of the compound fruit. Calyx lobes 4 or 5, small and broad, persistent. Petals 4 or 5, orbicular, white, caducous. Stamens numerous, in 2(3) whorls on the staminophore, free; filaments terete, white; anthers versatile, dorsifixed, dehiscing by longitudinal slits, connective gland terminal, much smaller than anthers. Ovary inferior, 3-locular, rarely 4-locular; placenta small, ellipsoidal, basal; ovules >30 per loculus, lateral to ascending; style filiform, glabrous; stigma small. Fruit capsular, fruiting hypanthia connate forming a woody, compound fruit. Valve margins pubescent. Seeds straight or slightly curved, narrowly-cuneate, angular, brown, minutely reticulate; hilum terminal. Trichomes, when present on leaves, stems and inflorescences; simple, non-glandular, appressed or spreading.

3 species all endemic to Australia.

Key to species of Syncarpia

1. Petioles 14–31 mm long; flowering hypanthia glabrous 2
   Petioles 7–14 mm long; flowering hypanthia sericeus . . . . **S. glomulifera**

2. Coppice growth hairy; floral bracts 2–3 × 3–4 mm; intramarginal vein well developed; petals glabrous on abaxial surface . . . . **S. hillii**
   Coppice growth glabrous; floral bracts 3–4 × 1.5–2.5 mm; intramarginal vein absent, petals hairy on abaxial surface . . . . **S. verecunda**

1. Syncarpia glomulifera (Sm.) Nied., in Engl. & Prantl, Nat. Pflanzenfam. III.(7): 88 (1893); *Metrosideros glomulifera* Sm., Trans. Linn. Soc. London 3: 269 (1797); *Nania glomulifera* (Sm.) Kuntze, Revis. gen. pl. 1: 242 (1891). **Type:** New South Wales. Port Jackson, in 1791, *D. Burton* s.n. (holo: LINN n.v., microfiche BRI!)

Tristania albens DC., Prodr. 3: 210 (1828); *Kamptzia albens* (DC.) Nees, Nov. Actorum Caes. Leop.-Carol. Nat. Cur. 18: 9 (1841). **Type:** 'Caet. ign. v.s. folium a cl. Otto missum' (holo: G-DC n.v., microfiche BRI!).

Syncarpia laurifolia Ten., Index Seminum in Horto Botanico Neapolitano Collectorum (1839). **Type:** culta in horto Regio Neapolitano (holo: NAP n.v., photo at BRI!).

***Illustrations*:** Clemson, Honey and Pollen Flora p. 112 (1985); Williams, Native Pl. Queensl. 2: 277 (1984); Boland et al., Forest Trees of Austral. 4th ed., p. 575 (1984).

Tree varying in height from 3m on very exposed mountain sites to 60m in fertile well-watered valleys. Bark stringy, persistent and furrowed, grey outside, brown below. Seedlings with cotyledons 4–4.5 × 7 mm; seedling leaves ovate, c. 37 × 20 mm, with apex acute and base cuneate, discolorous. Coppice leaves densely covered by short (<1 mm long) hairs; adult leaves ovate to narrowly-ovate, 5–10 × 1.8–4.0 cm, with apex acute or obtuse; upper surface dull green, glabrous; lower surface usually white-hairy; intramarginal vein absent or poorly developed; petioles 7–14 mm long, more or less terete. Foliar scales lanceolate, 4–11 × 1.5–3 mm, obtuse, sparsely hairy. Inflorescence pubescent; peduncles 14–32 mm long; bracts persistent, ovate, 3–4.5 × 2–2.5 mm, densely hairy, apex acute. Hypanthia smooth, hairy, cylindrical to ovoid, fused at their bases. Calyx lobes 4(5), persistent, triangular, 1.5–2.2 mm long, obtuse. Petals 5, ovate to orbicular, 2.5–3.5 × 2.5–3 mm, white, pubescent on both surfaces. Stamens numerous, inflexed in bud; filaments terete, 5-8 mm long; connective gland obscure. Style terete, not expanded, 5–9 mm long; stigma irregularly lobed. Surface of the ovary-top pubescent; ovary 3(4)-locular, with numerous ovules per loculus. Compound fruit globose to depressed-globose, 8–13 × 10–20 mm; seeds 1.5-2.5 mm long.

***Flowering period*:** Flowering occurs between September and December.

***Note*:** Bentham (1867) records 6–10 flowers per inflorescence for this species. While 6-flowered inflorescences can be found (where one flower of the inflorescence has not developed), I have been unable to find any inflorescences bearing more than 7 flowers. It is possible that a 10-flowered cluster could result if two adjacent 7-flowered inflorescences were fused.

Two subspecies are recognisable as follows:

Leaves and branchlets glabrous; fruiting hypanthia glabrescent .... subsp. **glabra**
Leaves and branchlets hairy; fruiting hypanthia remaining hairy .... subsp. **glomulifera**

Syncarpia glomulifera subsp. **glabra** (Benth.) A.R.Bean **comb. et stat. nov.**

Syncarpia laurifolia var. *glabra* Benth., Fl. Austral. 3: 266 (1867); *Metrosideros glomulifera* var. *glabra* (Benth.) C.Moore & Betche, Handb. Fl. New South Wales (1893); *Syncarpia procera* var. *glabra* (Benth.) Domin, Biblioth. Bot. 89: 472 (1928). **Type:** New South Wales. North Coast: Hastings River, *Dr Beckler* (holo: MEL!; iso: K n.v., photo at BRI!).

Leaf abaxial surface and stems glabrous on juvenile and mature plants; fruiting hypanthia glabrescent.

***Specimens examined*:** **New South Wales.** North Coast: Middle Brother SF, north-east of Taree, Apr 1994, *Bean* 7647 (BRI,NSW); Flat Rock Lookout, Lansdowne SF, Dec 1991, *Stockard* s.n. (NSW); Newbys Lookout, Lansdowne SF, Apr 1994, *Bean* 7653 (BRI, MEL,NSW); Upper Williams River, Aug 1935, *Rodway* s.n. (NSW).

***Distribution and habitat*:** This subspecies is confined to the coastal hills of north-eastern

New South Wales, from about Kempsey to Bulahdelah (**Map 2**). It occurs as a minor component of open forest or tall open forest usually dominated by *Eucalyptus pilularis* Sm. In this region, *S. glomulifera* subsp. *glomulifera* is apparently absent.

***Conservation status*:** *S. glomulifera* subsp. *glabra* is quite common over its range and is not currently under threat.

Syncarpia glomulifera subsp. **glomulifera**

Leaf abaxial surface and stems hairy on juvenile and mature plants; hairs persisting on fruiting hypanthia.

***Selected specimens*:** **Queensland.** Cook District: Shiptons Flat, Sep 1948, *Brass* 20195 (BRI); 13.3 km from Bloomfield Mission road on China Camp road, Aug 1986, *Hill* 1973 et al. (BRI,NSW). North Kennedy District: Diddleluma Creek, west of the Ravenshoe-Kaban road, Oct 1980, *Clarkson* 2668 (BRI,K,QRS); Saddle Mtn, Bowling Green Bay NP, south of Townsville, Aug 1991, *Bean* 3627 (BRI,L,MEL,NSW); Mt Bohle, 37 km SW of Charters Towers, Sep 1991, *Thompson* 257 & *Dillewaard* (BRI,CANB,NSW). Port Curtis District: Maryvale, between Byfield and Yeppoon, Sep 1931, *White* 8189 (BRI). Leichhardt District: Blackdown Tableland, Nov 1973, *Williams* 354 (BRI); Carnarvon NP, 60 mls [97 km] W of N from Injune, Jun 1965, *Trapnell* & *Williams* 104 (BRI). Wide Bay District: S of Haylocks road, Toolara SF near Gympie, Sep 1993, *Bean* 6486 (BRI). Moreton District: Jorl Court, S of Buderim, Mar 1993, *Bean* 5825 (BRI); Shipstern Range, Lamington NP, Dec 1943, *Blake* 15376 (BRI). **New South Wales.** North Coast: Kooyong, between Ardilly and Tullymorgan, Feb 1985, *Forbes* 2808 (BRI,MEL,MO,NSW); Diamond Head, S of Port Macquarie, Feb 1969, *Blaxell* 195 (NSW). Central Coast: Kurrajong at junction of Bells Line of Road and road to 'Spring Grove', Sep 1985, *Coveny* 12136 & *Makinson* (A,CANB, K,L,NSW); Beecroft, Sydney, Sep 1972, *Lebler* s.n. (BRI); Wheeney Creek, Wollemi NP, Oct 1991, *Coveny* 15874 & *Hind* (BRI,CBG, K,L,MEL). Central Tablelands: east end of Mt Solitary, 5 mls [8 km] S of Katoomba, Nov 1960, *Constable* s.n. (NSW). South Coast: Huskisson, Jervis Bay, Oct 1928, *Rodway* s.n. (NSW); Ulladulla, Oct 1957, *McGillivray* 661 (NSW).

***Distribution and habitat*:** *S. glomulifera* subsp. *glomulifera* has a large latitudinal range along the east coast of Australia, from just south of Cooktown in Queensland to Batemans Bay in New South Wales. The distribution is not continuous, with the most notable disjunction being between Shoalwater Bay (near Rockhampton) and Mt Elliot (near Townsville). (**Map 2**). This subspecies typically occurs as a component of tall eucalypt forest, often on the edge of rainforest, in association with species such as *Eucalyptus citriodora* Hook., *E. intermedia* R.T.Baker, *Casuarina torulosa* Aiton and *C. littoralis* Salisb. However, it will tolerate shallow, infertile soils and may be found on mountains as a small tree or shrub, with associated species such as stunted specimens of *Eucalyptus carnea* R.T.Baker and *E. exserta* F.Muell.

***Conservation status*:** A widespread and common taxon.

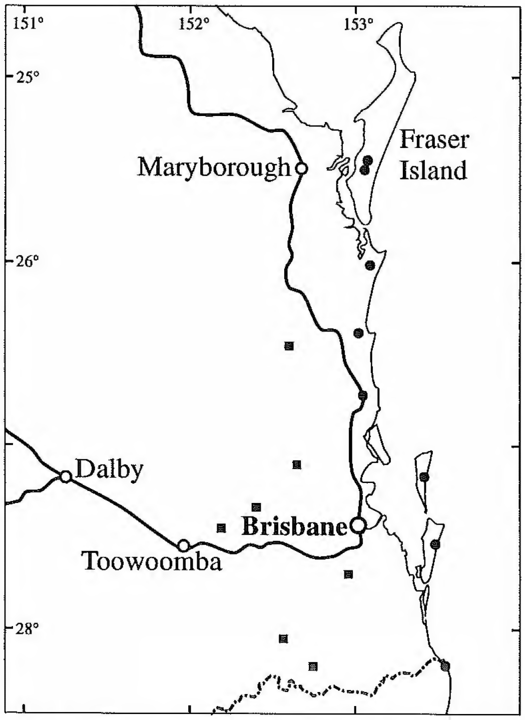
2. Syncarpia verecunda A.R.Bean **sp. nov.** affinis *S. glomuliferae* a qua florum hypanthiis glabris, petiolis longioribus, bracteis grandioribus, sepalis brevioribus differt. **Typus:** Queensland. Moreton District: Mt Maroon, SW of Rathdowney, 3 October 1993, *A.R. Bean* 6656 (holo: BRI; iso: CANB,K,MEL).

Syncarpia sp. (Ravensbourne J.A. Gresty 2053) in Henderson (1994)

Tree 10–25 m high. Bark fibrous or stringy, persistent and furrowed, grey outside, brown below. Seedlings with cotyledons 3.5–4.5 x 6–8 mm; seedling leaves ovate, 33–38 x 15–19 mm, apex acute to obtuse, base cuneate, discolorous. Coppice leaves glabrous, except for margins of very young leaves; adult leaves ovate, 7–10.5 x 2.8–4.6 cm, apex acute or acuminate, base cuneate, glabrous, discolorous; intramarginal vein absent; petioles 14–25 mm long, more or less terete. Foliar scales lanceolate, up to 22 x 4 mm, acuminate, glabrous. Inflorescence glabrous; peduncles 14–33 mm long; bracts persistent, ovate, 3–4 x 1.5–2.5 mm, glabrous, apex acute. Hypanthia smooth, glabrous, more or less cylindrical, fused at their bases. Calyx lobes 4, persistent, triangular, 1–1.5 mm long, acute, margins ciliate. Petals 4–5, rather irregularly arranged around rim of hypanthium, orbicular, 3–3.5 x 2.5–3 mm, with simple appressed hairs on both surfaces, margins ciliate, dendritic venation visible. Stamens very numerous, fully inflexed in bud; filaments terete, 5–8 mm long; connective gland terminal, inconspicuous. Style terete, 8–9 mm long; stigma slightly expanded, of smooth appearance. Surface of the ovary-top glabrous, ovary 3-locular, with numerous ovules per loculus. Compound fruit globose to depressed-globose, 12–13 × 16–20 mm; seeds 1.5–3 mm long. **Fig. 1.**

***Specimens examined*: Queensland.** WIDE BAY DISTRICT: Ryans Creek road, west of Imbil, Apr 1993, *Bean* 5977 (BRI,K,L,MEL,NSW,QRS). MORETON DISTRICT: Dianas Bath area, 9km E of Somerset Dam, Oct 1993, *Forster* PIF 14049 & *Leiper* (BRI,MEL,NSW); Ravensbourne NP, Oct 1959, *Gresty* 2053 (BRI); northern slopes of Mt Maroon, May 1990, *Bean* 1603 (BRI,NSW); Mt Greville, 15.6 km SW of Boonah, Aug 1973, *Durrington* 739 & *Sharpe* (BRI); foot of Mt Barney, Mar 1936, *Michael* 2275 (BRI); Mt Ernest, SW of Rathdowney, Apr 1993, *Bean* 6026 (BRI,K,MEL).

***Distribution and habitat*:** *S. verecunda* has a rather restricted distribution in south-eastern Queensland, from west of Imbil to within a few kilometres of the New South Wales border at Mt Ernest, and is most common on the mountain peaks around Boonah. (**Map 1**). It inhabits hills and mountains composed of acid volcanic rocks. Soils are sandy, and often shallow. Associated species include *Eucalyptus acmenoides* Schauer, *E. propinqua* H.Deane & Maiden and *E. dura* L.A.S.Johnson & K.D.Hill. *S. verecunda* and *S. glomulifera* subsp. *glomulifera* are allopatric, with *S. verecunda* occurring in the more westerly (inland) areas.



Map 1 . Distribution of *Syncarpia hillii* ● and *S. verecunda* ■.

***Flowering period*:** Flowering occurs in October-November.

***Affinities*:** *S. verecunda* differs from *S. hillii* by its leaves which lack an intramarginal vein, glabrous coppice growth (hairy in *S. hillii*), petals hairy on both surfaces (adaxial surface only is hairy in *S. hillii*), bracts 3–4 × 1.5–2.5 mm (2–3 × 3–4 mm in *S. hillii*), and its mostly smaller leaves and fruits.

S. verecunda differs from *S. glomulifera* by its glabrous floral hypanthia, petioles 14–25 mm long (7–14 mm for *S. glomulifera*), foliar scales up to 22 × 4 mm (up to 11 × 3 mm for *S. glomulifera*) and calyx lobes 1–1.5 mm long (1.5–2.2 mm long for *S. glomulifera*).

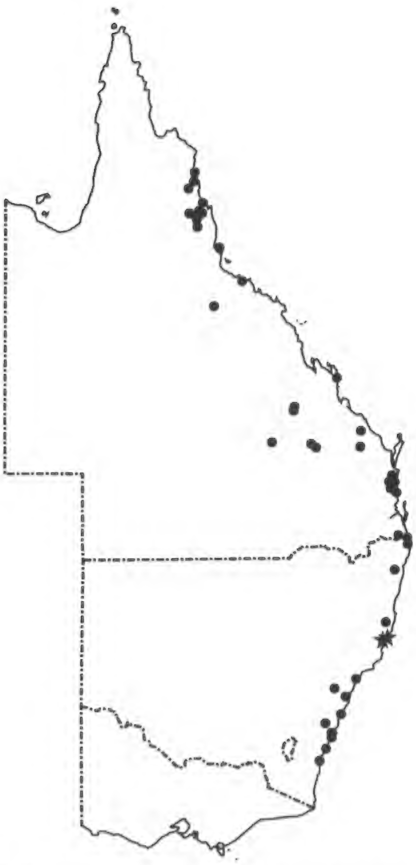
***Conservation status*:** This species, though of restricted distribution, is well conserved in a number of National Parks.

***Etymology*:** The epithet is derived from the Latin *verecundus*, shy or modest, an allusion to the species being hidden in, or obscured by the more widespread *S. glomulifera*.

3. Syncarpia hillii F.M.Bailey, Proc. Roy. Soc. Queensland 1: 86 (1885). **Type:** Queensland. WIDE BAY DISTRICT: Fraser Island, before 1884, *W. Hill* s.n. [AQ 278678] (holo: BRI, 4 sheets).

***Illustration*:** Williams, Native Pl. Queensl. 2: 277 (1984).

Tree 15–50 m high. Bark fibrous or stringy, persistent and furrowed, grey outside, brown underneath. Seedlings with cotyledons 4–4.5 × 6.5–7 mm; seedling leaves ovate, c. 40 × 20 mm, apex acute, base cuneate, discolorous. Coppice leaves and stems densely hairy, with spreading hairs up to 1.5 mm long; adult leaves ovate, 9-16 × 3.5–7.5 cm, apex acute or acuminate, base mostly cuneate, occasionally obtuse, glabrous, discolorous; intramarginal vein present and usually well developed; petioles 13–31 mm long,



Map 2. Distribution of *Syncarpia glomulifera* subsp. *glomulifera* ● and *S. glomulifera* subsp. *glabra* ★.

angular. Foliar scales lanceolate, c. 24 × 6 mm, acuminate, margins ciliate, otherwise glabrous. Inflorescence glabrous; peduncles 11–25 mm long; bracts persistent, deltoid, 2–3 × 3–4 mm, glabrous, acute. Hypanthia smooth, glabrous, more or less cylindrical, fused at their bases. Calyx lobes 4, persistent, obtuse, c. 1.2 × 2.2 mm, glabrous, margins ciliate. Petals 4–5, orbicular, 3.5–4 × 3.5–4 mm, adaxial surface hairy, abaxial surface glabrous; margins entire. Stamens very numerous, fully inflexed in bud; filaments 8–10 mm long, connective gland obscure. Style terete, up to 12 mm long; stigma slightly expanded. Surface of the ovary-top glabrous, ovary 3(4) locular, with numerous ovules per loculus. Compound fruit globose to depressed-globose, 14–16 × 19–21 mm; seeds 3–3.5 mm long.

***Specimens examined*: Queensland.** Wide Bay District: Fraser Island, May 1921, *White* s.n. (BRI,NSW); Fraser Island, Oct 1921, *White* 1195 (BRI); Fraser Island, Oct 1930, *Hubbard* 4589 (BRI); Lake Allom, Fraser Is., Aug 1986, *Wallace* 126/86 (NSW); Aqua Rd, 8 km SW of Poyungan Forestry Camp, Fraser Is., Aug 1986, *Briggs* 8010 (NSW); Kingfisher Bay resort, Fraser Island, Nov 1994, *Bean* 8102 (BRI,MEL,NSW); Broutha Waterhole, Cooloola NP, Sep 1993, *Bean* 6419 (BRI,K,MEL); Environmental Park 2 km west of Tewantin, Dec 1988, *Sharpe* 4844 & *Bean* (BRI). Moreton District: Jorl Court, S of Buderim, Mar 1993, *Bean* 5820 (BRI,K,MEL,NSW); east of Mt Campbell, Moreton Is., Jan 1976, *Palmer* s.n. (BRI); east of Mt Tempest, Moreton Is., Mar 1987, *Sandercoe* 3107 & *Adair* (BRI); 0.6 km E of Blue Lagoon outfall, [North] Stradbroke Is., Jun 1983, *Carey* s.n. (BRI). **New South Wales.** North Coast: Tweed Heads, Dec 1940, *White* 11383 (BRI,NSW).

***Distribution and habitat*:** *S. hillii* is widespread and common on the southern half of Fraser Island. It is also found, in lesser numbers, southwards along the coast and on coastal islands, at least as far as North Stradbroke Island. There is also a record of the species from Tweed Heads in far north eastern New South Wales. Although trees have not been relocated there recently, there is no reason to doubt the validity of the record (**Map 1**). *S. hillii* grows in tall open forest or on rainforest margins, in deep sandy soils of quarternary origin. It occasionally grows in association with *S. glomulifera* subsp. *glomulifera* (i.e. at Tewantin and Buderim), but hybrids between the two taxa have not been observed.

***Flowering period*:** Flowers have been recorded in November and December.

***Conservation status*:** This species was allocated the code 3RC by Thomas and McDonald (1989). Although some populations are small and threatened, the main population on Fraser Island is now protected under World Heritage legislation. It is therefore recommended that *S. hillii* be no longer listed as a rare or threatened plant.

Dubious name

Syncarpia procera (Salisb.) Domin, Biblioth. Bot. 89: 472 (1928); *Metrosideros procera* Salisb., Prodr. 351 (1796). Type: "juxta Port Jackson, David Burton". Salisbury's species descriptions were based on cultivated juvenile plants. No specimen of *M. procera* is known to exist, and the author's brief diagnosis is inadequate for identification of the taxon concerned.

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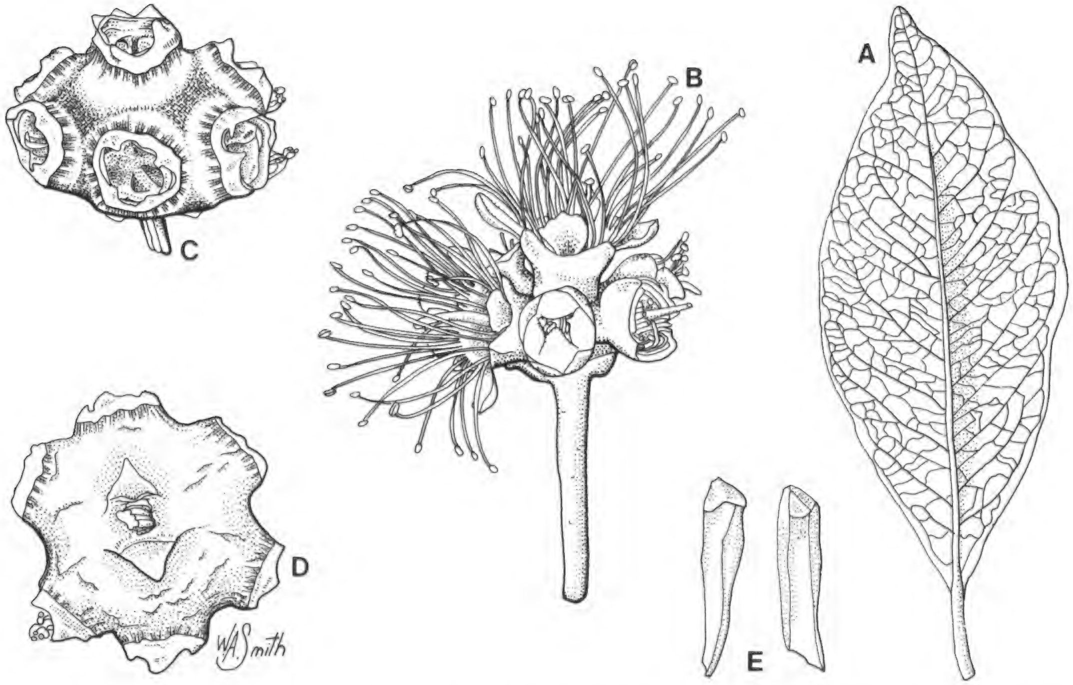

Fig. 1. *Syncarpia verecunda* A. adult leaf × 1. B. inflorescence at anthesis × 2. C. compound fruit, lateral view × 2. D. compound fruit, from below × 1. E. seeds × 10. A, Bean 6656; B, Bean 6156; D,C,E, Bean 6026 (BRI).

Excluded names

Syncarpia leptopetala F.Muell., Fragm. 1: 79 (1859) = *Choricarpia leptopetala* (F.Muell.) Domin.

Syncarpia subargentea C.T.White, Bot. Bull. 21: 8, t.3 (1919) = *Choricarpia subargentea* (C.T.White) L.A.S.Johnson, fide Johnson (1962).

Syncarpia subargentea var. *latifolia* C.T.White, Qld Dept. of Ag. & Stock, Botany Bulletin 21: 8 (1919) = *Choricarpia subargentea* (C.T.White) L.A.S.Johnson, fide Johnson (1962).

Syncarpia vertholenii Teijsm. & Binn., Nat. Tijdschr. Ned. Ind. 2: 307 (1855) = *Metrosideros vera* Roxb., fide Merrill (1917).

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References

Ashton, P. (1981). *Syncarpia*. In *Revised Handbook of the Flora of Ceylon* 2: 453–4. New Delhi: Amerind Publishing Co.

Bailey, F.M. (1885). Contributions to the Queensland Flora Part II, *Proceedings of the Royal Society of Queensland* 1: 84–92.

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Bentham, G. (1867). *Syncarpia*. In *Flora Australiensis* 3: 265–6. London: Lovell Reeve & Co.

Boland, D.J., Brooker, M.I.H., Chippendale, G.M., Hall, N., Hyland, B.P.M., Johnston, R.D., Kleinig, D.A. & Turner, J.D. (1984). *Forest Trees of Australia*, 4th edition. Thomas Nelson & CSIRO: Melbourne.

Briggs, B.G. & Johnson, L.A.S. (1979). Evolution in the Myrtaceae - evidence from inflorescence structure. *Proceedings of the Linnean Society of New South Wales* 102: 157–256.

Henderson, R.J.F. (ed.) (1994). *Queensland Vascular Plants - Names and Distribution*. Brisbane: Queensland Department of Environment & Heritage.

Johnson, L.A.S. (1962). Taxonomic Notes on Australian Plants. *Contributions from the N.S.W. National Herbarium* 3: 93–102.

Merrill, E.D. (1917). *An Interpretation of Rumphius's Herbarium Amboinense*. Manila: Bureau of Printing.

Smith, A.C. (1985). *Flora Vitiensis Nova*, Vol. 3. Honolulu: Pacific Tropical Botanic Gardens.

Thomas, M.B. & McDonald, W.J.F. (1989). *Rare and Threatened Plants of Queensland*, 2nd edition. Brisbane: Department of Primary Industries.

Welch, M.B. (1923). The occurrence of Secretory Canals in certain Myrtaceous plants. *Proceedings of the Linnean Society of New South Wales* 48: 660–73.

Wilson, P.G. & Waterhouse, J.T. (1982). A Review of the Genus *Tristania* R.Br. (Myrtaceae): a Heterogeneous Assemblage of Five Genera. *Australian Journal of Botany* 30: 413–46.